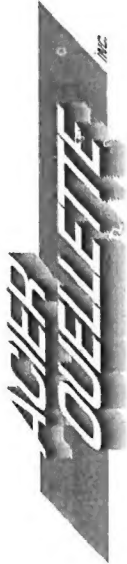




Dart Hawkesbury
1270 Aberdeen St
Hawkesbury, ON K6A 1K7 Canada
Tel (613) 632-5200
Fax 613 632-5246

Purchasing Receipts

PO No	Supplier	Line Item No	Rel No	Terms	Purchased Item	Description	For Part No	Project	Equipment ID	Order Qty	Due Date	Received Quantity	Accounting Job No	Container No	Status	Receive Date	Price/Unit	Aging Days	Past Due	Total	Supplier Name	
PO040517	ACI001-VC	1	1	Net 30	MT-A513-T-3.750W0.125	ASTM A513 TYPE 5 (1020/1026) ALLOY STEEL ROUND TUBING				6	7/31/2018	6		S103075	Stock	8/16/2018	\$ 120.30 / ft	0		\$771.84	Acier Ouellette Inc.	
		5			MT-4140-B-2.000X4.000	Steel Bar				4		4		S103076	Stock	8/16/2018	\$ 82.54 / ft	0		\$330.17	Acier Ouellette Inc.	
		6			MT-4140-B-0.500X4.000	4140 Steel Bar 0.500 X 4.000 : AISI 4140 STEEL BAR PER ASTM A29, AMS 6349, AMS 6382, AMS 6529, MIL-S-5626 MINIMUM ROCKWELL C = 28 RC MAXIMUM ROCKWELL C = 32 RC receive ft						4		S103077	Stock	8/16/2018	\$ 31.01 / ft	0		\$124.04	Acier Ouellette Inc.	
		7			MT-4140-S-0.500	AISI 4140 Steel Sheet : AISI 4140 / 4142 STEEL SHEET OR PLATE MINIMUM ROCKWELL C = 28 Rc MAXIMUM ROCKWELL C = 32 Rc ASTM A829, AMS 6395				11		11		S103078	Stock	8/16/2018	\$ 80.34 / sf	0		\$892.60	Acier Ouellette Inc.	
										Total:		25									\$1,613.60	



ACIER OUELLETTE INC.

935, Boul. du H vre
Salaberry de Valleyfield (Qu bec) J6S 5L1
T l.: 450-377-4248 M l: 514-336-4248 Ext.: 800-667-4248
Fax: 450-377-5696 M l: 514-336-4246 Ext.: 866-456-4242

DELIVERY - CLIENT

Copy

CO00100857

Billed to

DART AEROSPACE LTD
1270 , ABERDEEN ST.
HAWKESBURY, Ontario, K6A 1K7

Shipped to

DART AEROSPACE LTD

, Ontario,

Att : CHANTAL LAVOIE T l.: 613-632-5200

Instruction

F-M

Delivery Route

5

Customer N 

CLI0001056

Date

2018/07/18

Delivery date

2018/08/09

Your order N 

040517

Processed by

Eric Kaehlert

Salesman

OUELLETTE VALLEYFIELD

Credit Terme

Net 30 Days

Product Description	Weight	Qty	UM	PCS NB				Internal Use Only			
				CMD	EXP	B/O	IN	I	S	C	OUT
1 TUBE MEC 3.750 OD X .120 (R) TME-3750120 6697 1 X 6' ** CERTIFICATE ** LINE# 1 AC18277-RT-2018-07-25 Heat : 813X62610 <i>AK</i>	27.91	6.00	PI								
2 TUBE MEC 0.750 OD X .058 NS TME-0750058 40 2 X 20' R/L ** CERTIFICATE ** LINE# 2 AC18278-JG-2018-07-26 HEAT : A718541	88.80	40.00	PI_\$PI								
3 PLATE 4140 HEAT TREAT 2 NS P4140-2H 9072 1 X 4" X 4' ** CERTIFICATE ** HT# LINE# 5 AC18279-FU-2018-08-01 HEAT : C613450 <i>AK</i>	108.65	1.33	PI2								



DELIVERY - CLIENT

Copy

CO00100857

Product Description	Qty	Weight	UM	PCS NB			Internal Use Only				
				CMD	EXP	B/O	IN	I	S	C	OUT
4 PLATE 4140 HEAT TREAT 1/2 NS P4140-12H 1 X 4" X 4' ** CERTIFICATE ** HT# LINE# 6 AC18279-FU-2018-08-01 HEAT: 297080	27.16	1.33	PI2								
5 PLATE 4140 HEAT TREAT 1/2 NS P4140-12H 1 X 40" X 40" ** CERTIFICATE ** HT# LINE# 7 AC18279-FU-2018-08-01 HEAT: 297080	226.87	11.11	PI2								
Conditions : All sold and delivered materials remain the property of "Acier Ouellette Inc" until payment is made in full, complete and cashed. All lost materials are at the buyer's expense. The warranty offered by "Acier Ouellette Inc." is the same as offered and honored by the manufacturer and his warranty is transferred by "Acier Ouellette Inc." to the client. The buyer hereby accepts to respect the following conditions: Net 30 days from billing date and the buyer accepts to pay administration charges of 2% per month (24% per annum) on all past due amounts over 30 days. Any default in respect with this contract will lead to payment by acceleration and permits to the seller, at his choice to claim for the balance due or the repossession of the goods sold. All claims must be made within five (5) days with this document enclosed. Any merchandise that has been damaged, cut or modified cannot be returned. All goods returned must be with our authorization and are subject to a 25% restocking charge.				Total Weight (Lbs) : 479.39 NIR : R-109516-6							

Prepared By :

Verified By :

Delivered By :

Time

Date
19/08/16

Customer's Signature



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER **PO040517**

Supplier: ACI001-VC
Acier Ouellette Inc.
935 Boul. Du Havre
Valleyfield
QC
J6S 5L1 Canada
Phone: 800 667 4248
Fax: 450 377 5696

PO No: PO040517

PO Date: 7/17/18

Due Date: 7/24/18

**Purchase Order
Revision:**

Revision Date:

Ship-To Contact: Lavoie, Chantal
Phone: clavoie@dartaero.com

REVISED
\$

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

Via: Ground

Pynt Terms: Net 30

Freight Terms:

Special Comments: quotation no sou0119261

Items

Line Item	Job	Part	Supplier Part No	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1		MT-A513-T-3.750W0.125		ASTM A513 TYPE 5 (1020/1026) ALLOY STEEL ROUND TUBING	Firmed	-	7/24/18	6 ft	0 ft	6 ft	\$120.30/ft	\$721.80
2	AT	MT-A513-T-0.750W0.085		A513 Seamless Alloy Steel Round Tubing 0.75"dia. x 0.085" Wall	Firmed	-	7/24/18	120 ft	0 ft	120 ft	\$4.65/ft	\$558.00
3		MT-A513-T-0.750W0.058		A513 Seamless Alloy Steel Round Tubing 0.75"dia. x 0.058" Wall ASTM A513 TYPE 5 (1020/1026) SEAMLESS ALLOY STEEL ROUND TUBING (DOM)	Firmed	-	7/31/18	40 ft	0 ft	40 ft	\$10.90/ft	\$436.00
4		MT-HRS-S-6GA		Hot Rolled Steel Sheet 6 Gauge 0.1943"	Firmed	-	7/24/18	16 sf	0 sf	16 sf	\$7.36625/sf	\$117.86
Line Item Note: 1 pcs of 4 ft x 4 ft												
5		MT-4140-B-2.000X4.000		Steel Bar	Firmed	-	7/31/18	4 ft	0 ft	4 ft	\$82.5425/ft	\$330.17
6		MT-4140-B-0.500X4.000		4140 Steel Bar 0.500 X 4.000 : AISI 4140 STEEL BAR PER ASTM A29, AMS 6349, AMS 6382, AMS 6529, MIL-S-5626 MINIMUM ROCKWELL C = 28 RC MAXIMUM ROCKWELL C = 32 RC receive ft	Firmed	-	7/24/18	4 ft	0 ft	4 ft	\$31.01/ft	\$124.04
7		MT-4140-S-0.500		AISI 4140 Steel Sheet : AISI 4140 / 4142 STEEL SHEET OR PLATE MINIMUM ROCKWELL C = 28 Rc MAXIMUM ROCKWELL C = 32 Rc ASTM A829, AMS 6395	Firmed	-	7/24/18	11.111 sf	0 sf	11 sf	\$80.34218/sf	\$892.68

Line Item Note: 1 pcs of 40" x 40"

Items

Line Item	Job	Part	Supplier Part No	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
8 ✓ AT		M1018R4.000		M1018R4.000 : MATERIAL: AISI 1018-1025 ROUND BAR M1010S20GA AS PER MIL-S-7097 OR ASTM A108 receive ft	Firmed	-	7/20/18	2 ft	0 ft	2 ft	\$71.62/ft	\$143.24
									2ft			AUG 02 2018
9 ✓ AT		M1018R2.750		M1018R2.750 : MATERIAL: AISI 1018-1025 ROUND BAR M1010S20GA AS PER MIL-S-7097 OR ASTM A108	Firmed	-	7/24/18	6 ft	0 ft	6 ft	\$29.115/ft	\$174.69
									6ft			AUG 02 2018
10 ✓ AT		M303R2.500		303 Round Bar 2.5" : MATERIAL: AISI 303 SS ROUND BAR AS PER ASTM A582 NOTE:304/316 NOT ACCEPTABLE receive ft	Firmed	-	7/24/18	4 ft	0 ft	4 ft	\$20.50/ft	\$82.00
									4ft			AUG 02 2018
11 ✓ AT		M304S11GA		304/316 0.125 Sheet : MATERIAL: AISI 304/316 SS SHEET ANNEALED AS PER MIL-S-5059 OR AMS 5513 (304) OR AMS 5524 (316) OR ASTM A240 OR ASME SA240	Firmed	-	7/24/18	32 sf	0 sf	32 sf	\$15.5375/sf	\$497.20
									✓ 32sf			AT 18/08/18
12 ✓ AT		M5052H32S.040		5052-H32 .040 Sheet : MATERIAL: 5052-H32 ALUMINUM SHEET AS PER QQ-A-250/8 OR AMS-QQ-A-250/8 OR AMS 4016 OR ASTM B209 receive sf	Firmed	-	7/24/18	32 sf	0 sf	32 sf	\$4.1434375/sf	\$132.59
									✓ 32sf			AUG 02 2018
13 ✓ AT		M6061T6R1.250		6061-T6 Round Bar 1.250 : MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM ROUND BAR AS PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117 4128/4115/4116 OR QQ-AA-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B221 OR ASTM B221 receive ft	Firmed	-	7/24/18	20 ft	0 ft	20 ft	\$4.985/ft	\$99.70
									✓ 20ft			AUG 02 2018
14 ✓ AT		MT-1144-R0.750		1144 Steel Proof Round Bar 0.750" : MATERIAL: AISI 1144 STRESSPROOF STEEL ROUND BAR ASTM A311 or UNS G11440	Firmed	-	7/31/18	24 ft	0 ft	24 ft	\$3.12/ft	\$74.88
									✓ 22ft			AUG 02 2018
Line Item Note 2 pcs of 12 ft												
15 ✓ AT		M6061T6B1.000X02.000		6061-T6 Bar 1.00 X 2.00 : MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft	Firmed	-	7/24/18	20 ft	0 ft	20 ft	\$8.303/ft	\$166.06
									✓ 20ft			AUG 02 2018

Items												
Line Item	Job	Part	Supplier Part No	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
16 ✓ AT		M6061T6B0.375X0.750		6061T6 Bar .375 X .750 : MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft	Firmed	-	7/24/18	20 ft	0 ft 20ft	20 ft	\$1.288/ft	\$25.76 AUG 02 2018
17 ✓ AT		M6061T6B0.500X02.000		6061-T6 Bar .500 X 2.00 : MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft	Firmed	-	7/24/18	20 ft	0 ft 20ft	20 ft	\$4.148/ft	\$82.96 AUG 02 2018
18 ✓ AT		M6061T6B0.750X02.000		6061-T6 Bar .750 X 2.00 : MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft	Firmed	-	7/24/18	20 ft	0 ft 20ft	20 ft	\$6.2895/ft	\$125.79 AUG 02 2018
19 ✓ AT		M6061T6B3.000X01.500		6061-T6 Bar 3.00 X 1.50 : MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft	Firmed	-	7/24/18	12 ft	0 ft 12ft	12 ft	\$18.043333/ft	\$216.52 AUG 02 2018
20 ✓ AT		M6061T6S.040		6061-T6 .040 Sheet : MATERIAL: 6061-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/11 OR AMS-QQ-A-250/11 OR AMS 4025 OR AMS 4027 OR ASTM B209 receive sf	Firmed	-	7/24/18	144 sf	0 sf 96sf	144 sf	\$8.5069444/sf	\$1,225.00 AUG 02 2018
21 ✓ AT		M6061T6S.080		6061-T6 .080 Sheet : MATERIAL: 6061-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/11 OR AMS-QQ-A-250/11 OR AMS 4025 OR AMS 4027 OR ASTM B209 receive sf	Firmed	-	7/24/18	288 sf	0 sf 288sf	288 sf	\$9.6979166/sf	\$2,793.00 AUG 02 2018
Grand Total:											\$9,019.94	

Order Notes

CL

Order Notes

Procurement Quality Clauses

A005 right of entry

A012 chemical and physical test report

A016 personnel qualification

A017 raw material identification (as applicable)

A026 certification of material conformance

A041 quality management system

A042 dart notification by supplier

A043 retention of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program

A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Plex 7/18/18 12:53 PM dart.lavoie.chantal

CO 100857
Dart

P.O 18277

CERTIFICATE OF TEST

Page 01 of 01

Certification Date
25-JUL-2018

CUSTOMER ORDER NUMBER

AC00018277

CUSTOMER PART NUMBER

Invoice Number
T132129

SOLD TO: ACIER OUELLETTE INC.
DIVISION SALABERRY-DE-VALLEYFIELD
935, BOUL DU HAVRE
SALABERRY-DE- VALLEYFIELD QC J6S 5L1

SHIP TO: ACIER OUELLETTE INC.
DIVISION SALABERRY-DE-VALLEYFIELD
935, BOUL DU HAVRE
SALABERRY-DE- VALLEYFIE QC J6S

Description: 1020 DOM SRA (A513/5)
~~3.750 OD X 3.500 ID X 6'5.0" (-77.0") REMNAN~~ Line Total: 6.4 FT
HEAT: 813X62610 ITEM: 107457

Specifications:
ASTM A513 TP 5

CHEMICAL ANALYSIS

C	MN	P	S	AL	SI	CB	V
0.19	0.36	0.008	0.006	0.042	0.085	0.002	0.001
CU	MO	NI	CR	B			
0.023	0.004	0.01	0.02	0.0002			

RCPT: R273456

COUNTRY OF ORIGIN : USA

MECHANICAL PROPERTIES

	YLD STR	ULT TEN	%ELONG	%RED	HARDNESS
DESCRIPTION	PSI	PSI	IN 02 IN	IN AREA	RB
	64100.0	76700.0	20.0		85

TERRY GALBRAITH

The above data were transcribed from the manufacturer's Certificate of Test after verification for completeness and specification requirements of the information on the certificate. All test results remain on file subject to examination.

We hereby certify that the material covered by this report will meet the applicable requirements described herein, including any specification forming a part of the description.

The willful recording of false, fictitious, or fraudulent statements in connection with test results may be punishable as a felony under federal statutes.

Material did not come in contact with mercury while in our possession.

MANAGER, CORPORATE PURCHASING

A horizontal number line with tick marks labeled 1 through 8 from right to left. The line is oriented horizontally, with the number 1 at the right end and 8 at the left end. The tick marks are evenly spaced, and the numbers are placed directly below each tick mark.

SPECIFICATION: ASTM A513 TYPE 5

PART NUMBER: MT-A513-T-[D.DDD]W[T.TTT]

PART NUMBER: MT-A513-T-[D.DDD]W[T.TTT]

WHERE D.DDD IS OUTSIDE DIAMETER IN INCHES

EG. 3/4" ROUND TUBING WITH .120" WALL THICKNESS = MT-A513-T-0.750W0.120

A horizontal number line with tick marks labeled 1 through 8 from right to left. The line is oriented horizontally, with the number 1 at the right end and 8 at the left end. The tick marks are evenly spaced, and the numbers are placed directly below each tick mark.

A horizontal number line with tick marks labeled 1 through 8 from right to left. The line is oriented horizontally, with the number 1 at the right end and 8 at the left end. The tick marks are evenly spaced, and the numbers are placed directly below each tick mark.

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: MT-AS13-T-3.750W0.125 PO / BATCH NO.: P0040517/5103025
 DATE: 18/08/16

MATERIAL CERT REC'D: Yes
 QUANTITY RECEIVED: 6.416 Lf
 QUANTITY INSPECTED: 6.416 Lf
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 3.750" 0.125"
 THICKNESS RECEIVED: 3.750" 0.125"
 SHEET SIZE ORDERED: —
 SHEET SIZE RECEIVED: —

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y <input checked="" type="radio"/> N <input type="radio"/>	
CORRECT FINISH	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORROSION	Y <input checked="" type="radio"/> N <input type="radio"/>	
CORRECT GRAIN DIRECTION	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="radio"/> Y <input type="radio"/> N	ASTM A513 Type 5
CORRECT THICKNESS	<input checked="" type="radio"/> Y <input type="radio"/> N	
PHOTO REQUIRED	Y <input checked="" type="radio"/> N <input type="radio"/>	
CORRECT REF # TO LINK CERT	<input checked="" type="radio"/> Y <input type="radio"/> N	MT: 813x62610
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORRECT M# ON THE MATERIAL	<input checked="" type="radio"/> Y <input type="radio"/> N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y <input checked="" type="radio"/> N <input type="radio"/>	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y <input checked="" type="radio"/> N <input type="radio"/>	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>AT</u>	SIGNED OFF BY: _____
DATE: <u>18/08/16</u>	DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

Chemical certification
Certification chimique

18279N

Order Num / No. Commande AC-18279	Vendor / Fournisseur 52	Country of origin / Pay d'origine CHINA	Date 11/16/17	Heat / coulée C613450	Material ID # / No. matière
Grade / Nuance 4140 PLT	Conditions HEAT TREATED				
Shape / Forme PLT	Size / Dimension 2.000	Specifications ASTM A829, ASTM A578 CLASS A			

Chemical composition / Analyse chimique				
Carbon (C)	Silicon (Si)	Manganese (Mn)	Phosphorus (P)	
Mini / maxi 0.3700 / 0.4400	0.1500 / 0.3500	0.6500 / 1.1000	0.0100 / 0.0190	
Actuel % 0.390	0.260	0.930	0.020	
Sulphur (S)	Chromium (Cr)	Nickel (Ni)	Molybdenum (Mo)	
Mini / maxi 0.0200 / 0.0400	0.7500 / 1.2000	0.1000 / 0.2000	0.1500 / 0.2500	
Actuel % 0.002	1.050	0.000	0.210	
Copper (Cu)	Vanadium (V)	Aluminum (Al)	Tungsten (W)	
Mini / maxi 0.1900 / 0.2900	0.0000 / 0.0000	0.0000 / 0.0000	0.0000 / 0.0000	
Actuel % 0.000	0.000	0.000	0.000	
Cobalt (Co)	Titanium (Ti)			
Mini / maxi 0.0000 / 0.0000	0.0000 / 0.0000	0.0000 / 0.0000	0.0000 / 0.0000	0.0000 / 0.0000
Actuel % 0.000	0.000	0.000	0.000	0.000
Mechanical properties / Propriétés Mécaniques				
Yield strenght / Élasticité	Tensile / Rés. à la traction	Elongation / Allon. (%)	Red. of area / Surface (%)	RC
680.000 PSI	895.000 PSI	16.00	41.00	
				Surface Hd / Dureté 30 BHN

Note:

We certify that the above data has been verified and are conform to an original mill or supplier certificate supplied to us with the material

Nous certifions que les données ci haut ont été vérifier et sont conformes d'après un certificat originale qui nous a été fourni par notre fournisseur.

MS

Prepared by: / Préparé par:

PURCHASE MATERIAL : AISI 4140, 4142 STEEL BAR
MINIMUM ROCKWELL C = 28 Rc
MAXIMUM ROCKWELL C = 32 Rc

SPECIFICATION: ASTM A29, AMS 6349, AMS 6382, MIL-S-5629, MIL-S-24093

PART NUMBER: MT-4140-B-TTTTT x W.WWWW
WHERE "TTTT" = THICKNESS IN INCHES
WHERE "W.WWWW" = WIDTH IN INCHES
EX. 4.0" x 6.0" BAR = MT-4140-B-4.000x6.000

[illegible]

8 7 6 5 4 3 2 1

REV.	DESCRIPTION	ECN #	DATE	BY	APPROVED
A	NEW ISSUE	18-544	18.2.13	VM	ML

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL : AISI 4140 / 4142 STEEL SHEET OR PLATE
MINIMUM ROCKWELL C = 28 Rc
MAXIMUM ROCKWELL C = 32 Rc

SPECIFICATION: ASTM A829, AMS 6395

PART NUMBER: MT-4140-S-(T.TTT) x [W.WWW]
WHERE "T.TTT" = THICKNESS IN INCHES
WHERE "W.WWW" = WIDTH IN INCHES (OPTIONAL FOR SPECIFYING CUT PLATE)

EX. 0.063" THICK SHEET = MT-4140-S-0.063
EX. 3.5" WIDE BY 0.500" THICK PLATE = MT-4140-S-0.500X3.500



THE FOLLOWING INFORMATION IS FOR THE CUSTOMER'S USE ONLY. IT IS NOT TO BE USED FOR ANY OTHER PURPOSE.

THIS DRAWING IS THE PROPERTY OF DART AEROSPACE LTD. IT IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT PERMISSION IN WRITING FROM DART AEROSPACE LTD.

DESIGNED BY: VM 2/13/2018
CHECKED BY: VM 02/13/2018
APPROVED BY: ML 02/13/2018

DATE: 2/13/2018
SCALE: 1:1
SHEET TOP 1

REVISIONS: 1.0
REVISIONS: 2.0
REVISIONS: 3.0
REVISIONS: 4.0
REVISIONS: 5.0
REVISIONS: 6.0
REVISIONS: 7.0
REVISIONS: 8.0
REVISIONS: 9.0
REVISIONS: 10.0

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MATERIAL RECEIPT INSPECTION FORM

MATERIAL: MT-4140-B-2.000x1.000

PO / BATCH NO.: P0040517/S103076

DATE: 18/08/16

MATERIAL CERT REC'D: Yes

THICKNESS ORDERED: 2.000"

QUANTITY RECEIVED: 4ft

THICKNESS RECEIVED: 2.000"

QUANTITY INSPECTED: 4ft

SHEET SIZE ORDERED: —

QUANTITY REJECTED: 0

SHEET SIZE RECEIVED: —

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y <input checked="" type="radio"/> N	
CORRECT FINISH	<input checked="" type="radio"/> Y N	
CORROSION	Y <input checked="" type="radio"/> N	
CORRECT GRAIN DIRECTION	<input checked="" type="radio"/> Y N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="radio"/> Y N	ASTM A829
CORRECT THICKNESS	<input checked="" type="radio"/> Y N	
PHOTO REQUIRED	Y <input checked="" type="radio"/> N	
CORRECT REF # TO LINK CERT	<input checked="" type="radio"/> Y N	MT: C613450
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="radio"/> Y N	
CORRECT M# ON THE MATERIAL	<input checked="" type="radio"/> Y N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y <input checked="" type="radio"/> N	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y <input checked="" type="radio"/> N	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>AT</u>	SIGNED OFF BY: _____
DATE: <u>18/08/16</u>	DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

Chemical certification
Certification chimique

18279N

Order Num / No. Commande AC-18279	Vendor / Fournisseur 46	Country of origin / Pay d'origine SLOVENIA	Date 09/10/16	Heat / coulée 297080	Material ID # / No. matière
Grade / Nuance 4140 PLT	Conditions HEAT TREATED Q&T E + VD				
Shape / Forme FLT	Size / Dimension 0.500	Specifications ASTM A829/A829M			

Chemical composition / Analyse chimique							
Carbon (C)		Silicon (Si)		Manganese (Mn)	Phosphorus (P)		
Mini / maxi	0.3700 / 0.4400	0.1500 / 0.3500		0.6500 / 1.1000	0.0100 / 0.0190		
Actuel %	0.430	0.224		0.783	0.007		
Sulphur (S)		Chromium (Cr)		Nickel (Ni)	Molybdenum (Mo)		
Mini / maxi	0.0200 / 0.0400	0.7500 / 1.2000		0.1000 / 0.2000	0.1500 / 0.2500		
Actuel %	0.001	0.960		0.130	0.160		
Cooper (Cu)		Vanadium (V)		Aluminum (Al)	Tungsten (W)		
Mini / maxi	0.1900 / 0.2900	0.0400 / 0.0500		0.0090 / 0.0190	0.0000 / 0.0000		
Actuel %	0.244	0.039		0.015	0.000		
Cobalt (Co)		Titanium (Ti)					
Mini / maxi	0.0000 / 0.0000	0.0000 / 0.0000	0.0000 / 0.0000	0.0000 / 0.0000	0.0000 / 0.0000		
Actuel %	0.000	0.000	0.000	0.000	0.000		
Mechanical properties / Propriétés Mécaniques							
Yield strenght / Élasticité		Tensile / Rés. à la traction	Elongation / Allon. (%)	Red. of area / Surface (%)	RC	Surface Hd / Dureté	
0.000	PSI	0.000	PSI	0.00	0.00	284	BHN

Note:

We certify that the above data has been verified and are conform to an original milli or supplier certificate supplied to us with the material

Nous certifions que les données ci haut on été vérifier et sont conformes d'après un certificat originale qui nous a été fourni par notre fournisseur.

MI
Prepared by: / Préparé par:

8 7 6 5 4 3 2 1

REV.	DESCRIPTION	ECN #	DATE	BY	APPROVED
A	NEW ISSUE	17-790	17.12.13	VM	ML
B	MIN & MAX Rc CHANGED	18-523	18.01.24	VM	ML
C	ADD AISI 4142	18-544	18.02.14	ML	ML

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL : AISI 4140/ 4142 STEEL BAR
MINIMUM ROCKWELL C = 28 Rc
MAXIMUM ROCKWELL C = 32 Rc

SPECIFICATION: ASTM A29, AMS 6349, AMS 6382, AMS 6529, MIL-S-5626, MIL-S-24093

PART NUMBER: MT-4140-B-[L.TTT] x [W.WWW]
WHERE "L.TTT" = THICKNESS IN INCHES
WHERE "W.WWW" = WIDTH IN INCHES
EX. 4.0" x 6.0" BAR = MT-4140-B-4.000x6.000

DART AEROSPACE		Newbury, Ontario, Canada	
TITLE AISI 4140 / 4142 STEEL BAR			
PART NO	MT-4140-B	REV	C
TOOL NO.			
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES DIMENSIONS ARE TO BE HONED DIMENSIONS APPLY AFTER FINISHING			
DESIGNED BY	VM 12/13/2017	DATE	12/13/2017
DRAWN BY	ML 02/14/2018	DATE	02/14/2018
CHECKED BY	VM 02/14/2018	DATE	02/14/2018
APPROVED BY	ML 02/14/2018	DATE	02/14/2018
FINISH		SCALE	1:1
TOLERANCES		FINISHES	2.0
SURFACE		ROUGHNESS	1.0
SHEET TOP 1		SHEET TOP 1	
THIS DRAWING IS THE PROPERTY OF DART AEROSPACE. IT IS TO BE USED FOR THE PURPOSES OF THE ORDER ONLY. IT IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT PERMISSION IN WRITING FROM DART AEROSPACE.			

8 7 6 5 4 3 2 1

8 7 6 5 4 3 2 1

REV.	DESCRIPTION	ECN #	DATE	BY	APPROVED
A	NEW ISSUE	18-544	18.2.13	VM	ML

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL : AISI 4140 / 4142 STEEL SHEET OR PLATE
MINIMUM ROCKWELL C = 28 Rc
MAXIMUM ROCKWELL C = 32 Rc

SPECIFICATION: ASTM A829 / AMS 6395

PART NUMBER: MT-4140-S-[T.TTT] x [W.WWWW]
WHERE "T.TTT" = THICKNESS IN INCHES
WHERE "W.WWWW" = WIDTH IN INCHES (OPTIONAL FOR SPECIFYING CUT PLATE)

EX. 0.063" THICK SHEET = MT-4140-S-0.063
EX. 3.5" WIDE BY 0.500" THICK PLATE = MT-4140-S-0.500X3.500

DART AEROSPACE	
Newbury, Ontario, Canada	
TITLE AISI 4140 / 4142 STEEL SHEET OR PLATE	
PART NO.	REV
MT-4140-S	A
TOOL NO.	
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES DIMENSIONS APPLY AFTER FINISHING	
INITIALS AND DATE	
DESIGNED BY: VM 2/13/2018	PLACEMENT:
DRAWN BY: VM 02/13/2018	XXX ± .005
CHECKED BY: VM 02/13/2018	XX ± .01
MFG REVIEW BY: DO 02/13/2018	X ± .1
APPROVED BY: ML 02/14/2018	SCALE: NTS
SHEET 1 OF 1	
COMPANY: DART AEROSPACE LTD.	
THIS DOCUMENT IS UNCLASSIFIED TO ANY ONE OF THE FOLLOWING DIVISIONS	
UNCLASSIFIED TO ANY ONE OF THE FOLLOWING DIVISIONS	

8 7 6 5 4 3 2 1

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: MT-4140B-0.500x4.000

PO / BATCH NO.: P0040517/S103077

DATE: 18/08/16

MATERIAL CERT REC'D: Yes

THICKNESS ORDERED: 0.500"

QUANTITY RECEIVED: 4P

THICKNESS RECEIVED: 0.500"

QUANTITY INSPECTED: 4P

SHEET SIZE ORDERED: —

QUANTITY REJECTED: 0

SHEET SIZE RECEIVED: —

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y <input checked="" type="checkbox"/> N	
CORRECT FINISH	<input checked="" type="checkbox"/> Y N	
CORROSION	Y <input checked="" type="checkbox"/> N	
CORRECT GRAIN DIRECTION	<input checked="" type="checkbox"/> Y N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="checkbox"/> Y N	<u>ASTM A821</u>
CORRECT THICKNESS	<input checked="" type="checkbox"/> Y N	
PHOTO REQUIRED	Y <input checked="" type="checkbox"/> N	
CORRECT REF # TO LINK CERT	<input checked="" type="checkbox"/> Y N	<u>MT-297080</u>
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="checkbox"/> Y N	
CORRECT M# ON THE MATERIAL	<input checked="" type="checkbox"/> Y N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y <input checked="" type="checkbox"/> N	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y <input checked="" type="checkbox"/> N	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>AT</u>	SIGNED OFF BY: <u> </u>
DATE: <u>18/08/16</u>	DATE: <u> </u>

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

8 7 6 5 4 3 2 1

REV.	DESCRIPTION	ECN #	DATE	BY	APPROVED
A	NEW ISSUE	18-544	18.2.13	VM	ML

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL : AISI 4140 / 4142 STEEL SHEET OR PLATE
MINIMUM ROCKWELL C = 28 Rc
MAXIMUM ROCKWELL C = 32 Rc

SPECIFICATION: ASTM A829, AMS 6395

PART NUMBER: MT-4140-S-[T.TTT] x [W.WWW]
WHERE "T.TTT" = THICKNESS IN INCHES
WHERE "W.WWW" = WIDTH IN INCHES (OPTIONAL FOR SPECIFYING CUT PLATE)

EX. 0.063" THICK SHEET = MT-4140-S-0.063
EX. 3.5" WIDE BY 0.500" THICK PLATE = MT-4140-S-0.500X3.500



TITLE	
AISI 4140 / 4142 STEEL SHEET OR PLATE	
PART NO.	REV
MT-4140-S	A
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES AND DECIMALS THEREOF DIMENSIONS APPLY AFTER FINISHING	
TOLERANCES	
DESIGNED BY: VM 2/13/2018	FRACTIONS ± 1/8
DRAWN BY: VM 02/13/2018	ANGLES ± 30°
CHECKED BY: VM 02/13/2018	PLANE ± .01
APPROVED BY: VM 02/13/2018	FINISHNESS
APPROVED BY: VM 02/13/2018	
SCALE: 1:1	
SHEET 1 OF 1	
DART AEROSPACE LTD.	
1000 DART PARKWAY, SUITE 100, MISSISSAUGA, ONTARIO L4X 1V7, CANADA	
TEL: 905.277.1234 FAX: 905.277.1235	

note

8 7 6 5 4 3 2 1

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: MT-4140-S-0.500
 DATE: 18/08/16

PO / BATCH NO.: P0040517/5403078

MATERIAL CERT REC'D: Yes
 QUANTITY RECEIVED: 11.115 f
 QUANTITY INSPECTED: 11.115 f
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 0.500"
 THICKNESS RECEIVED: 0.500"
 SHEET SIZE ORDERED: 40" x 40"
 SHEET SIZE RECEIVED: 40" x 40"

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	Y	<input checked="" type="checkbox"/> N	
CORRECT FINISH	<input checked="" type="checkbox"/> Y	N	
CORROSION	Y	<input checked="" type="checkbox"/> N	
CORRECT GRAIN DIRECTION	<input checked="" type="checkbox"/> Y	N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="checkbox"/> Y	N	ASTM A829
CORRECT THICKNESS	<input checked="" type="checkbox"/> Y	N	
PHOTO REQUIRED	Y	<input checked="" type="checkbox"/> N	
CORRECT REF # TO LINK CERT	<input checked="" type="checkbox"/> Y	N	MT-297080
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="checkbox"/> Y	N	
CORRECT M# ON THE MATERIAL	<input checked="" type="checkbox"/> Y	N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	<input checked="" type="checkbox"/> N	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	<input checked="" type="checkbox"/> N	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK.
 RECORD RESULTS BELOW

	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION		ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>AI</u>	SIGNED OFF BY: _____	
DATE: <u>18/08/16</u>	DATE: _____	

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in